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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/601,264	06/20/2003	Edward A. Hill	100110242-1	6734
22879 7590 05/03/2007 HEWLETT PACKARD COMPANY P O BOX 272400, 3404 E. HARMONY ROAD INTELLECTUAL PROPERTY ADMINISTRATION FORT COLLINS, CO 80527-2400			EXAMINER CHAWAN, SHEELA C	
			ART UNIT 2624	PAPER NUMBER
			MAIL DATE 05/03/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/601,264

Applicant(s)

HILL ET AL.

Examiner

Sheela C. Chawan

Art Unit

2624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 25 January 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 5-20, 22, 23, 26, 27, 29 and 30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 5-8, 18-20, 22, 23, 26, 27, 29 and 30 is/are allowed.
- 6) ☒ Claim(s) 9-14 is/are rejected.
- 7) ☒ Claim(s) 11, 16-17 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

**DETAILED ACTION**

***Response to Amendment***

1. Applicant's amendment filed 1/25/07 has been entered.

Claims 1-4, 21, 24-25 and 28 are cancelled. Claims 5-20, 22-23, 26-27 and 29-30 are pending in the application.

In response to applicant's amendment to claims 5, 20, 22, 26 and 29-30 by incorporating the allowable subject matter as set forth in the last Office action mailed 9/25/06, the rejection of claims 5, 20, 22, 26 and 29-30 has been withdrawn.

2. The indicated allowability of claims 9 -17 is withdrawn in view of the newly discovered reference(s) to Davis (US 4,314,159)

3. Rejections based on the newly cited reference(s) follow.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 9-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Davis (US 4,314,159).

As to claim 9, Davis discloses an optical object detector comprising:

a feed path (in Figure 1, a scanning document 10 is supported by a drum 12 and provides a feed path by moving the document; column 4, lines 1-20);

a reference pattern facing the feed path (column 5, lines 5-10; plurality of stripes 42 on backing surface 14 provides a reference pattern);

an optical sensor configured to view the reference pattern through the feed path (photoelectric transducers 24, 26 and 28 in Figure 1 act as an optical sensor), absence of the reference pattern from the view of the optical sensor indicating presence of an object in the feed path (abstract; column 3 line 64 to column 4 line 1); wherein the reference pattern includes a plurality of stripes (abstract; 42 in Figure 1).

As to claim 10, Davis discloses a method of detecting an object in a feed path, the method comprising:

viewing the feed path to identify a viewable pattern (a scanning document 10 in Figure 1 has a viewable pattern inherently), the viewable pattern nominally being a reference pattern (42 is a reference pattern) disposed opposite a point of view through the feed path (document 10 is moved by the supporting roller 12 providing a feed path mechanism for the scanning document);

comparing the viewable pattern to the reference pattern, a predetermined difference between the viewable pattern and the reference pattern indicating presence of an object in the feed path (abstract).

As to claim 11, Davis discloses a method, wherein the viewing the feed path includes emitting light toward a scan region of the feed path and detecting light reflected from the scan region, such reflected light defining the viewable pattern (column 3, lines 21-54).

As to claim 12, Davis discloses a method, which further comprises feeding an object through the scan region to alter view of the reference pattern from the point of view through the scan region (Figure 1; column 4, lines 1-54).

As to claim 13, Davis discloses a method, which further comprises feeding an object through the scan region to obstruct view of the reference pattern (Figure 1; abstract).

As to claim 14, Davis discloses a method, which further comprises feeding an object through the scan region to displace the reference pattern (Figure 1; abstract).

***Allowable Subject Matter***

5. Claims 15-17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Non of the prior art on record teaches or fairly suggests, viewing the feed path and comparing the viewable pattern to the reference pattern are performed iteratively, and wherein initially noting the predetermined difference between the viewable pattern and the reference pattern indicates entry of the object into the scan region as required by claim 15.

Claims 16-17 depend from the objected base claim 11 and therefore they are objected for the same reasons.

Claims 5-8, 18-20, 22-23, 26-27 and 29-30 are allowed.


**Contact Information**

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sheela C Chawan whose telephone number is. 571-272-7446. The examiner can normally be reached on Monday - Thursday 7.30 - 6.00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eileen Lillis can be reached on 571-272-6928. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Sheela Chawan  
Patent Examiner  
Group Art Unit 2624  
April 24, 2007

  
SHEELA CHAWAN  
PRIMARY EXAMINER